



Proposed Revisions to 314 CMR 4.00: Massachusetts Surface Water Quality Standards Regulation

Antidegradation and Anti-Backsliding Implementation

Implications for Implementation of Proposed SWQS Revisions Regarding the SWQS' Antidegradation and the CWA's Anti-Backsliding Provisions

Background

The purpose of the 314 CMR 4.00: Massachusetts Surface Water Quality Standards (SWQS) regulation is to restore, enhance, and protect the chemical, physical, and biological integrity of surface waters in Massachusetts. The SWQS were adopted to designate the most sensitive uses for which surface waters are to be regulated, prescribe the minimum water quality criteria required to sustain those uses, restore waters to those uses, and maintain high quality waters.

The Federal Water Pollution Control Act, 33 USC §1251, et seq. (known as the Clean Water Act or CWA) and associated federal Water Quality Standards, 40 CFR Part 131, require the U.S. Environmental Protection Agency (EPA) to periodically publish updated or new recommended ambient water quality criteria (AWQC). The CWA and these federal regulations also require states to periodically review and, as appropriate, to update the AWQC they have adopted in State regulations. Each State has the option of either adopting the federally recommended criteria or developing its own criteria, subject to EPA review and approval. EPA may also promulgate criteria for a State that develops criteria that are not protective or that neither adopts EPA's recommended criteria nor develops its own.

The current version of the SWQS cross-references and adopts EPA's National Recommended Water Quality Criteria: 2002 (EPA-822-R-02-047, November 2002; see 314 CMR 4.05(5)(e)) to establish certain AWQC. With these revisions, MassDEP will be updating many criteria to be consistent with EPA's latest criteria recommendations. This will result in revised criteria for many toxic pollutants that are either higher or lower than the current version of the SWQS. Antidegradation provisions in the SWQS at 314 CMR 4.04, along with an associated antidegradation implementation document, protect high quality waters from degradation. Anti-backsliding provisions of the CWA at Section 402(o) prevent entities permitted under the National Pollutant Discharge Elimination System program (NPDES) and MassDEP's Surface Water Discharge Permit program (SWD) from obtaining permit renewals with effluent limits that are less stringent than their previous permits, except under specific circumstances.

Regulation and Guidance

Under CWA section 303(c)(2)(B), states are required to adopt AWQC for all toxic pollutants for which criteria have been published by EPA under the CWA. See the additional fact sheet on the proposed Table 29, Generally Applicable Criteria, in the SWQS for more details on criteria additions and updates. In many cases, the proposed revisions to the SWQS will or may result in the applicable surface water quality criteria becoming less stringent as compared to the current version of the SWQS.

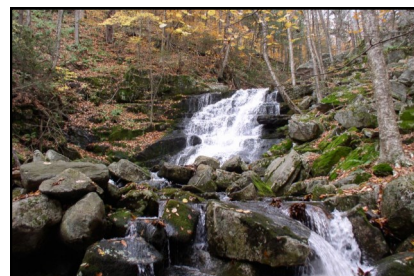


Photo from <https://themdc.org/what-we-do/drinking-water/watershed-protection>

Spotlight

Antidegradation provisions protect high quality waters from degradation. Anti-backsliding provisions of the CWA prevent NPDES/SWD permittees from obtaining permits with less stringent limits than their previous permits, except under specific circumstances.

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Antidegradation and Anti-Backsliding Implementation (cont.)

As a result, when existing NPDES/SWD permits are up for renewal, the change in the criteria may trigger the antidegradation provisions of the SWQS and/or the anti-backsliding provisions of the CWA.

SWQS Antidegradation Provisions (314 CMR 4.04): The intent of the antidegradation provisions of the SWQS is to protect and maintain existing uses, high quality waters, outstanding resource waters (ORW), and special resource waters (SRW) at their existing level of quality. This is accomplished by prohibiting discharges except under special circumstances, or by placing limitations on, and requiring MassDEP authorization for, new or increased discharges. In addition, for ORWs, the cessation of existing discharges and connection to a POTW is required if feasible.

CWA Anti-Backsliding Provisions: As it relates to permit limits that are based on water quality standards (also known as water-quality-based effluent limits or WQBELS), the CWA section 402(o)(1) prohibits the relaxation of permit limits that are based on state standards, such as water quality standards, unless one of two exceptions under CWA section 303(d)(4) are met. The CWA will allow permit limits to be relaxed under two situations:

1. For a waterbody that is not meeting water quality standards, a relaxed effluent limit can be allowed if
 - a) the limit was based on a Total Maximum Daily Load (TMDL) or wasteload allocation and
 - b) attainment of water quality standards will be ensured.
2. For a waterbody that is meeting water quality standards, a relaxed effluent limit can be allowed if it is based on a TMDL, wasteload allocation, or other water quality standard, and is consistent with the state's antidegradation regulation and implementation policy.

Proposed Revisions

MassDEP has incorporated the new and revised toxic pollutant criteria into the proposed Table 29, which sets forth criteria protective of aquatic life and human health. Most criteria in the proposed Table 29 are presented as absolute values. Model- and equation-based criteria dependent on data inputs representing local surface water conditions are also included. Revised criteria for many toxic pollutants may be either higher or lower than criteria in the current version of the SWQS. When NPDES/SWD permits are up for renewal, any increases in criteria may trigger the antidegradation provisions of the SWQS and/or the anti-backsliding provisions of the CWA.

Coordination with Other Groups

MassDEP discussed issues related to anti-backsliding and antidegradation with NPDES/SWD permittees at two stakeholder workshops held in the spring of 2019.

Regulatory Implications

As NPDES/SWD permits are renewed after the SWQS regulation is revised and effluent limits are calculated based on new criteria, EPA and MassDEP permit writers will need to determine if effluent limits based on the new criteria are consistent with anti-backsliding and antidegradation provisions. In some cases, permittees will not be able to receive less stringent effluent limits when the water quality criteria have become less stringent, due to either anti-backsliding or antidegradation. These decisions will be made on a case-by-case basis as permits are renewed. Permittees with concerns about these issues should reach out to EPA or MassDEP to discuss their specific situation.

For more information:

See the following MassDEP policy titled *Implementation Procedures for the Antidegradation Provisions of the Massachusetts Surface Water Quality Standards, 314 CMR 4.00* at <https://www.mass.gov/files/documents/2016/08/wo/antideg.pdf>. Also see the following EPA web site: <https://www.epa.gov/wqs-tech/key-concepts-module-4-antidegradation>.

See Chapter 7 of EPA's Permit Writer's course at https://www.epa.gov/sites/production/files/2015-09/documents/pwm_chapt_07.pdf for details on anti-backsliding

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